

Notice of Allowability

Application No.

10/028,823

Examiner

Cheryl M. Shechtman

Applicant(s)

HOSHINO ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/13/07.
2. ☒ The allowed claim(s) is/are 11-13.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

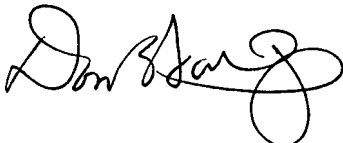
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



DON WONG

SUPERVISORY PATENT EXAMINER

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DETAILED ACTION

1. This communication is in response to Amendment filed April 13, 2007. Claims 1-10 are cancelled. Claims 11-13 are newly added.

Response to Arguments

2. Referring to the 35 USC 112 second paragraph rejection of claim 9, Applicant's cancellation of the claim renders this rejection moot.

Allowable Subject Matter

3. Claims 11-13 are allowed.
4. The following is an examiner's statement of reasons for allowance:

Referring to claim 11, Jacobs discloses a database management method said method comprising the steps of:

analyzing a query request input from a terminal thereto and generating an execution module;

reserving, when the stored program which is not contained in the execution module and which is beforehand stored in a database management system is invoked at execution of the execution module, resources to be used by the stored program, checking resources to be used by the stored program and determining resources to be set as resources unavailable to another program until a transaction is completed and resources to be set as unavailable resources until the stored program is terminated, and

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registering information about said reserved resource in a resource managing table, which is corresponding to resources already reserved in execution of the query having invoked the stored program;

releasing, in response to an input of a transaction completion request or issuance of a commit statement from the program, the resources set as unavailable resources until the transaction is completed in the stored program.

Referring to claim 11, Fujita discloses:

referring, at release of a transaction from a stored program, to a release resource managing table and a resource managing table to determine a reserved resource which is registered in the resource managing table and which is not registered in the release resource managing table; and

releasing, the reserved resource having been determined by said referring step.

Neither Jacobs taken either alone or in obvious combination disclose all the claimed features of applicant's instant invention, namely:

a database management method in a database management system which comprises storages, an SQL execution environment which receives a query request to a database stored in said storage and performs a data operation to said database based on the received query request, a resource reserving unit which reserves resources used by said SQL execution environment, a resource releasing unit which releases the resources used by the SQL execution environment, and a program execution

environment which communicates with said SQL execution environment, said database management method comprising the steps of:

storing in said storages, a program execution module executed by said SQL execution environment, an SQL execution module, an SQL execution termination module, and programs executed by said program execution environment;

by said SQL execution environment, in response to an input of the query request, referring to a dictionary of management information for the database stored in the storage to acquire a program execution module specified by said query request and definition information referred to by the specified program execution module and determine a program to be executed among said programs;

passing a resource reserving request to said resource reserving unit, said resource reserving request including information for reserving a resource type corresponding to a resource to be used in a program execution process executed by said program execution module as a resource which is non-releasable until process termination of said query request;

by said resource reserving unit, in response to an input of the passed resource reserving request, analyzing the input resource reserving request, resultantly finding that the resource represented by said resource type is non-releasable until the process termination of said query request, and registering said resource type both in a release resource managing table and a resource managing table stored in said storage;

by said SQL execution environment, starting the program execution process by referring to said storages and executing the program execution module referred to

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thereby, and passing by said program execution process, an execution request of said program preset in said program execution module to said program execution environment;

by said program execution environment, in response to an input of said program execution request, starting a data operation process by referring to said storages and executing said program referred to thereby, and passing by said started data operation process, a data operation request preset in said program to the SQL execution environment;

by said SQL execution environment, determining the SQL execution module corresponding to said passed data operation request, and passing to said resource reserving unit a resource reserving request, said resource reserving request being to reserve as a resource which is non-releasable until the processing of the data operation request is terminated, a resource type corresponding to said resource used in said SQL execution module;

by said resource reserving unit, in response to an input of the passed resource reserving request,

analyzing the input resource reserving request, resultantly finding that the resource represented by said resource type is non-releasable until the processing of said data operation request is terminated, and registering said resource type in the resource managing table without registering in the release resource managing table;

by said SQL execution environment, executing the SQL execution module determined by referring to the storage;

in a data operation terminating process preset in the execution program, passing to said SQL execution environment, a data operation terminating request representing process termination of the data operation;

by said SQL execution environment, in response to an input of the passed data operation terminating request, executing a SQL execution terminating module corresponding to the data operation terminating request by reference to said storage, and passing to the resource releasing unit, a resource releasing request as a result of execution of the SQL execution terminating module, said resource releasing request being to release the resource used in execution of the SQL execution module; and

by said resource releasing unit, in response to an input of the passed resource releasing request, analyzing the input resource releasing request, resultantly finding that the input resource releasing request represents release of the resource used in execution of the SQL execution module, thereby referring to the release resource managing table and the resource managing table to extract a resource to be released which is registered in the resource managing table but not registered in the release resource managing table, and deleting a resource type matching with the extracted resource, from the resource managing table and keeping to hold an unmatched resource type, whereby the resource to be released and used by the SQL execution module is released and the resource used by the program execution module is kept stored.

Also, there is no motivation to combine Fujita to meet these limitations. It is for these reasons that applicant's invention defines over the prior art of record.

Claims 12 and 13 are similar to claim 11 and are therefore also allowable for the same reasons listed above with respect to claim 11.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

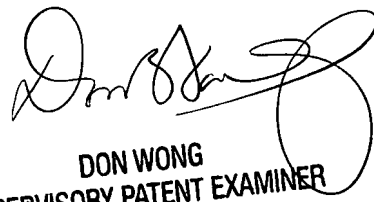
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl M Shechtman who can be reached on (571) 272-4018. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 29, 2007
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SUPERVISORY PATENT EXAMINER
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